(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 29 April 2004 (29.04.2004)

(10) International Publication Number WO 2004/035882 A2

(51) International Patent Classification7:

D01F

(21) International Application Number:

PCT/KR2003/002180

- (22) International Filing Date: 17 October 2003 (17.10.2003)
- (25) Filing Language:

Korean

(26) Publication Language:

English

- (30) Priority Data: 10-2002-0063639 17 October 2002 (17.10.2002) KR 10-2002-0063640 17 October 2002 (17.10.2002)
- (71) Applicant (for all designated States except US): NEXEN NANO TECH CO., LTD [KR/KR]; 373-1 Guseong-dong, Yaiseong-gu, 305-701 Daejeon (KR).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): YOON, Seong Ho [KR/KR]; 152-1 Shinsong-dong, Yuseong-gu, 305-805 Daejeon (KR).
- (74) Agent: YOU, Byung Sun; 610 Mannyun Officetel, 241 Walpyung-dong, Seo-gu, 302-282 Daejeon (KR).

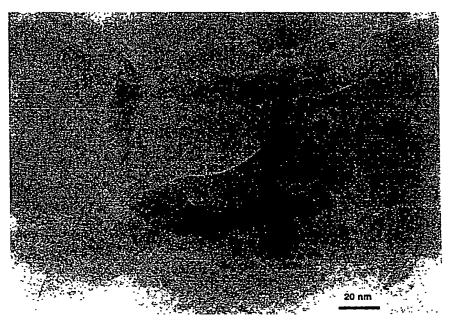
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ULTRA-FINE FIBROUS CARBON AND PREPARATION METHOD THEREOF



(57) Abstract: The present invention discloses ultra-fine fibrous carbon and preparation of the same. Specifically, the present ultrafine fibrous carbon is characterized by the graphite-like structure with the sp2 hybrid carbon content of more than 95 % per total content; the (002) plane interlayer spacing (d₀₀₂ d-spacing of C(002) profiles determined by X-ray diffraction method) of 0.3370 ~ 0.3700 nm; the (002) plane stacking of more than 4 layers, namely the stacking height (Lc002) of more than 1.5 nm; fibrous carbon length per fibrous carbon width of diameter (aspect ratio) of more than 20; the average diameter of 5 ~ 50 nm.

